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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,882	06/20/2001	Steven Eric Linthicum	RD-27281	1535

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
NISKAYUNA, NY 12309

EXAMINER	
NGUYEN, THU HA T	
ART UNIT	**PAPER NUMBER**
2155	

DATE MAILED: 08/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/681,882	LINTHICUM ET AL.	
	Examiner	Art Unit	
	Thu Ha T. Nguyen	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 December 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims **1- 20** are presented for examination.

2. Claims 1, 14 and 20 are currently amended.

Response to Arguments

3. Applicant's arguments filed December 06, 2004 have been fully considered but they are not persuasive because of the following reasons:

4. Applicant argues that Hanson does not teach or suggest the maintenance history comprising records of repairs, maintenance and parts for the field asset. In response to applicant's argument, examiner asserts that since this limitation is currently amended, thus the amendment is moot in view of the new ground(s) of rejection (see rejection below).

5. Applicant argues that there is no motivation to combine the teaching of Hanson and Maus. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the reason to include multimedia information, as disclosed by Maus, into Hanson and Cardillo system because it would have an efficient communications system that provides an efficient computerized information processing and retrieval system and

manipulate data from variety of sources and/or information from Internet (see paragraphs 0002, 0010).

6. As a result, cited prior art does teach a maintenance management system and method, as broadly claimed by the Applicants. Applicants clearly have still failed to identify specific claim limitations that would define a clearly patentable distinction over prior art.

7. Therefore, the examiner asserts that cited prior art teaches or suggests the subject matter broadly recited in independent claims 1, 14 and 20. Claims 2-13, and 15-19 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in this office action. Accordingly, claims 1-20 are rejected.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-9, 12, and 14-20 are rejected under 35 U.S.C. §103 (a) as being unpatentable over **Hanson et al.** (hereinafter Hanson) U.S. Publication

No. **2002/0156558**, in view of **Cardillo et al.,** (hereinafter Cardillo) U.S. Patent No. **5,917,408.**

10. As to claim 1, Hanson teaches the invention substantially as claimed, including a maintenance management system for a given field asset comprising:

a portable computer with communication capability disposed on the field asset and adapted to store a maintenance history for the given field asset and further adapted to retrieve at least one of a plurality of maintenance information corresponding to the given field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026); and,

a communication network coupled to the portable computer and to at least one source of maintenance information to provide the at least one of a plurality of maintenance information for use in servicing the given field asset (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

However, Hanson does not explicitly teach the maintenance history comprising records of repairs, maintenance and parts for the field asset.

Cardillo teaches the maintenance history comprising records of repairs, maintenance and parts for the field asset (abstract, col. 2, line 55-col. 3, line 23, col. 5, lines 17-65, col. 7, lines 43-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the feature of the maintenance history comprising records of repairs, maintenance and parts for the field asset, as

disclosed by Cardillo, into Hanson system because it would provide a properly updated with the appropriate and useful information about what maintenance has been performed in the past and which parts are required to complete the maintenance (see Cardillo col. 5, lines 17-65).

11. As to claim 2, Hanson teaches the invention as claimed in claim 1, wherein the maintenance information comprises at least one of maintenance instructions, technical documentation for the field asset, repair and maintenance history records, and maintenance and repair status (figure 1, paragraphs 0026-0027).

12. As to claim 3, Hanson teaches the invention as claimed in claim 1, further comprising an on-board computing device further adapted to monitor operational parameters of the field asset and to communicate the operational parameters to the communication network (figure 1, paragraphs 0002-0004, 0005-0006).

13. As to claim 4, Hanson teaches the invention as claimed in claim 3, wherein the portable computer and the on-board computing device are selected to withstand the environmental conditions of the field asset (paragraphs 00220026).

14. As to claim 5, Hanson teaches the invention as claimed in claim 1, wherein the portable computer is further adapted to be removable from the field asset and configured to interface with the communication network via the on-board computing device in a wireless manner (figures 1, 4, paragraphs 0023-0027).

15. As to claim 6, Hanson teaches the invention as claimed in claim 1, wherein the portable computer is configured to periodically query the communication network for at least one of maintenance instructions and updates to its technical information (figure 1, paragraph 0026).

16. As to claim 7, Hanson teaches the invention as claimed in claim 1, wherein the communication network is configured to import maintenance information from at least one of the sources (figure 1, paragraphs 0026-0027).

17. As to claim 8, Hanson teaches the invention as claim in claim 1, wherein the portable computer is further adapted to permit service personnel to select maintenance instructions and record maintenance activities for the field asset (paragraphs 0019-0020, 0024-0027).

18. As to claim 9, Hanson teaches the invention as claim in claim 1, wherein the portable computer is adapted to provide feedback of completion of a repair action to the communication network (paragraphs 0018-0019).

19. As to claim 12, Hanson teaches the invention as claim in claim 1, wherein the communication network is coupled to at least one of a customer center, a service center, a parts requisition center and a configuration database (figure 1).

20. As to claim 14, Hanson teaches the invention substantially as claim, including a maintenance management system for a given field asset comprising:

an on-board computing device disposed on the field asset and adapted to store a maintenance history for the given field asset and further adapted to retrieve at least one maintenance instruction corresponding to the given field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026);

a plurality of sources of maintenance instructions (figure 1); and,

a communication network coupled to the on-board computing device and to the plurality of sources of maintenance instructions to provide the at least one maintenance instruction for use in servicing the given field asset (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

However, Hanson does not explicitly teach the maintenance history comprising records of repairs, maintenance and parts for the field asset.

Cardillo teaches the maintenance history comprising records of repairs, maintenance and parts for the field asset (abstract, col. 2, line 55-col. 3, line 23, col. 5, lines 17-65, col. 7, lines 43-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the feature of the maintenance history comprising records of repairs, maintenance and parts for the field asset, as disclosed by Cardillo, into Hanson system because it would provide a properly updated with the appropriate and useful information about what maintenance has been performed in the past and which parts are required to complete the maintenance (see Cardillo col. 5, lines 17-65).

21. As to claim 15, Hanson teaches the invention as claim in claim 14, wherein the maintenance instructions comprise at least one of maintenance instructions, technical documentation for the field asset, repair and maintenance history records, and maintenance and repair status (figure 1, paragraphs 0026-0027).

22. As to claim 16, Hanson teaches the invention as claim in claim 14, wherein the on-board computing device is further adapted to monitor operational parameters of the field asset and to communicate the operational parameters to the communication network (figure 1, paragraphs 0002-0004, 0005-0006).

23. As to claim 17, Hanson teaches the invention as claim in claim 14, wherein the on-board computing device is selected to withstand the environmental conditions of the field asset (paragraphs 00220026).

24. As to claim 18, Hanson teaches the invention as claim in claim 14, wherein the on-board computing device is further adapted to be removable from the field asset and configured to interface with the communication network in a wireless manner (figures 1, 4, paragraphs 0023-0027).

25. As to claim 19, Hanson teaches the invention as claim in claim 14, wherein the on-board computing device is configured to periodically query the communication network for maintenance instructions (figure 1, paragraph 0026).

26. As to claim 20, Hanson teaches the invention substantially as claim, including a method for maintenance management of a given field asset comprising:

storing a maintenance history on a computing device disposed on the field asset; periodically querying a remote communication network for required maintenance events for the field asset (abstract, figures 1, 2, 4, paragraphs 0018-0019, 0023-0026);

retrieving the required maintenance events from the remote communication network for use in servicing the field asset; and, updating the communication network from the computing device upon completion of the required maintenance events (abstract, figure 1, paragraphs 0020-0022, 0026-0027).

However, Hanson does not explicitly teach the maintenance history comprising records of repairs, maintenance and parts for the field asset.

Cardillo teaches the maintenance history comprising records of repairs, maintenance and parts for the field asset (abstract, col. 2, line 55-col. 3, line 23, col. 5, lines 17-65, col. 7, lines 43-64).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the feature of the maintenance history comprising records of repairs, maintenance and parts for the field asset, as disclosed by Cardillo, into Hanson system because it would provide a properly updated with the appropriate and useful information about what maintenance has been performed in the past and which parts are required to complete the maintenance (see Cardillo col. 5, lines 17-65).

27. Claims 10-11 and 13 are rejected under 35 U.S.C. §103 (a) as being unpatentable over **Hanson et al.** (hereinafter Hanson) U.S. Publication No. **2002/0156558**, and **Cardillo et al.,** (hereinafter Cardillo) U.S. Patent No. **5,917,408**, further in view of **Maus et al.,** (hereinafter Maus) U.S. Publication No. **2002/0128864.**

28. As to claim 10, Hanson and Cardillo system does not explicitly teach multimedia information; however, Maus teaches wherein the maintenance information comprises multimedia information (paragraphs 0078-0080). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have information includes multimedia information, as disclosed by Maus, into Hanson and Cardillo system because it would have an efficient

communications system that provides an efficient computerized information processing and retrieval system and manipulate data from variety of sources and/or information from Internet (see paragraphs 0002, 0010).

29. As to claim 11, Hanson and Cardillo system does not explicitly teach multimedia information comprises at least one of still and video images, text instructions, schematics, drawings, instant messaging instructions and audio instructions; however, Maus teaches wherein the multimedia information comprises at least one of still and video images, text instructions, schematics, drawings, instant messaging instructions and audio instructions (paragraphs 0078-0080). It would have bee obvious to one skill in the art at the time the invention was made to have the same motivation as set forth in claim 10, supra.

30. As to claim 13, Hanson and Cardillo system does not explicitly teach the portable computer is adapted to link to a bar code reader to decode bar-coded information during execution of a repair action. However, Maus teaches wherein the portable computer is adapted to link to a bar code reader to decode bar-coded information during execution of a repair action (paragraphs 0038, 0075). It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention was made to combine the teachings of Maus into Hanson and Cardillo system to have a bar code reader because it would have an efficient system that can use and read bar code of products in order to provide sufficient information to user/consumer.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Ha Nguyen, whose telephone number is (571) 272-3989. The examiner can normally be reached Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Najjar Saleh, can be reached at (571) 272-4006.

The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bharat Barot

BHARAT BAROT
PRIMARY EXAMINER

Thu Ha Nguyen

August 12, 2005